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EM014769782US



Biogen A064 US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patentees : Adrian Whitty, Laura Runkel, Margot
Brickelmaier, Paula Hochman

Assignee : BIOGEN IDEC MA INC.

Patent No. : 6,800,735

Issued : October 5, 2004

Application No. : 09/832,659

Filed : April 11, 2001

For : INTERFERON-BETA FUSION PROTEINS AND USES

Group Art Unit : 1647

Examiner : Jegatheesan Seharaseyon

Certificate
DEC 18 2007
of Correction

New York, New York
December 12, 2007

Attn: Certificate of Correction Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

REQUEST UNDER 37 C.F.R. § 1.323 FOR

CERTIFICATE OF CORRECTION

Sir:

Patentees have enclosed nine (9) sheets of Form
PTO/SB/44 (in duplicate) listing printing errors that the

12/14/2007 SSESXZ1 00000071 061075 6800735

01 FC:1811 100.00 DA

Patentees have found in the above-identified patent. The errors are the Patentees mistake. They first came to the Patentee's attention in a July 20, 2007 Office Action issued by the Chinese Patent Office in an application claiming the same invention as this patent. All of the corrected errors are clerical and self-explanatory. Their correction neither constitutes new matter nor requires reexamination.

The Sequence Listing

Several typographical errors appear in the Sequence Listing of the patent. In light of the patent specification, these errors are obvious. Each error is detailed below:

SEQ ID NO:5 is incorrectly identified in the Sequence Listing as a nucleic acid sequence of 60 base pairs in length. The specification, however, clearly details, at Column 15, lines 15-25, that SEQ ID NO:5 is a nucleic acid sequence of 69 base pairs in length. Thus, Patentees have corrected this obvious error by amending SEQ ID NO:5 in the Sequence Listing to recite the 69 base pairs described in the specification.

SEQ ID NO:6 is incorrectly identified in the Sequence Listing as a nucleic acid sequence of 51 base pairs in length.

The specification, at Column 15, lines 25-27, however, clearly details that SEQ ID NO:6 is the amino acid encoded by the 69 base pair nucleic acid sequence of SEQ ID NO:5 (i.e., 23 amino acids). Patentees have corrected this obvious error by amending SEQ ID NO:6 in the Sequence Listing to recite the appropriate 23 amino acid protein.

SEQ ID NO:7 is incorrectly identified in the Sequence Listing as a nucleic acid sequence of 76 base pairs in length. The specification, however, clearly details, at Column 15, lines 30-36, that SEQ ID NO:7 is a nucleic acid sequence of 81 base pairs in length. Patentees have corrected this obvious error by amending SEQ ID NO:7 in the Sequence Listing to recite the 81 base pairs described in the specification.

SEQ ID NO:8 is incorrectly identified in the Sequence Listing as a 51 amino acid long protein. The specification, at Column 15, lines 30-36, however, clearly details that SEQ ID NO:8 is the amino acid encoded by the 81 base pair nucleic acid sequence of SEQ ID NO:7 (i.e., 27 amino acids). Patentees have corrected this obvious error by amending SEQ ID NO:8 in the

Sequence Listing to recite the appropriate 27 amino acid protein.

SEQ ID NO:9 is incorrectly identified in the Sequence Listing as a human nucleic acid sequence. The specification (see Column 22, lines 15-20), however, clearly indicates that SEQ ID NO:9 is a synthetic primer. Patentees have corrected this obvious error by amending the description of SEQ ID NO:9 in the Sequence Listing.

SEQ ID NOs:10, 11 and 12 are incorrectly identified in the Sequence Listing as human nucleic acid sequences of 50, 47, and 50 base pairs in length, respectively. The specification, however, at Column 22, lines 21-25 and lines 36-39, clearly details that SEQ ID NOs:10, 11 and 12 are, respectively, synthetic nucleic acid primers of 39, 35, and 35 base pairs in length. Patentees have corrected these obvious errors by amending SEQ ID NOs:10, 11 and 12 in the Sequence Listing to recite the nucleic acid sequences described in the specification.

SEQ ID NOs:13 to 21 are incorrectly identified in the Sequence Listing as human nucleic acid sequences. The

specification, however, at Column 25, Table 2, clearly details that SEQ ID NOs:13 to 21 are synthetic oligonucleotides. Table 2 also clearly indicates that the sequences in SEQ ID NOs 13 to 21 are not correct. Patentees have corrected these obvious errors by amending SEQ ID NOs:13 to 21 in the Sequence Listing to recite the nucleic acid sequences specifically disclosed in Table 2 of the specification.

Patentees inadvertently did not include in the Sequence Listing the DDDDK amino acid sequence recited at Column 3, line 42; Column 32, line 61; and Column 35, line 33 of the specification; the His₆ amino acid sequence recited at Column 3, line 40, of the specification; and the GGGGS amino acid sequence recited at Column 15, line 36 and Column 35, line 34, of the specification. Patentees have listed these amino acid sequences as SEQ ID NOs:62, 63 and 64, respectively, in the Sequence Listing and noted those SEQ ID NO: identifiers in the specification, where appropriate.

None of the above corrections constitutes new matter. None requires reexamination.

**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission
(Including this Transmittal Form in Duplicate)

23

Patent Number

6,800,735

Issue Date

October 5, 2004

First Named Inventor

Adrian Whitty

Art Unit

1647

Examiner Name

Jegatheesan Seharaseyon

Attorney Docket Number

Biogen A064 US

ENCLOSURES (Check all that apply)☐

Fee Transmittal Form

☐

Fee Attached

☐

Amendment/Reply

☐

After Final

☐

Affidavits/declaration(s)

☐

Extension of Time Request

☐

Express Abandonment Request

☐

Information Disclosure Statement

☐Certified Copy of Priority
Document(s)☐Reply to Missing Parts/
Incomplete Application☐Reply to Missing Parts
under 37 CFR 1.52 or 1.53☐

Drawing(s)

☐

Licensing-related Papers

☐

Petition

☐Petition to Convert to a
Provisional Application☐Power of Attorney, Revocation
Change of Correspondence Address☐

Terminal Disclaimer

☐

Request for Refund

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CD, Number of CD(s) _____

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After Allowance Communication to TC

☐Appeal Communication to Board
of Appeals and Interferences☐Appeal Communication to TC
(Appeal Notice, Brief, Reply Brief)☐

Proprietary Information

☐

Status Letter

☒Other Enclosure(s) (please identify
below):1. Request for Certificate of Correction (6
pages; in duplicate);

2. Certificate of Correction (9 pages)

3. Return postcard.

Remarks

The Director of the United States Patent and Trademark Office is hereby authorized to charge payment of any fees required in connection with this Statement to Deposit Account No. 06-1075 (Order No. 000455-0391). A duplicate copy of this Form is transmitted herewith.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name

Ropes & Gray LLP

Signature

Printed name

Raymond M. Doss

Date

December 12, 2007

Reg. No.

61,000

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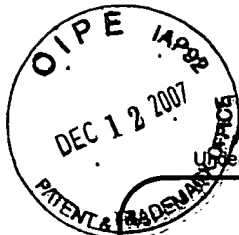
SARAH SCHLIE

Date

December 12, 2007

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Fee Attached



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After Final



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Ropes & Gray LLP

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Printed name

Raymond M. Doss

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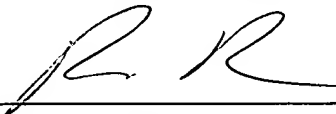
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United States Patent 6,800,735
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Patentees, therefore, respectfully request that the Patent and Trademark Office issue a Certificate of Correction pursuant to 37 C.F.R. § 1.323. Please charge the \$100.00 payment of the fee set forth in 37 C.F.R. § 1.20(a) to Deposit Account No. 06-1075, Order No. 000455-0391. The Director is also authorized to charge any additional fee due, or to credit any overpayment, in connection with this Request to Deposit Account No. 06-1075, Order No. 000455-0391. A duplicate copy of this Request is enclosed herewith.

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Respectfully submitted,



James F. Haley, Jr. (Reg. No. 27,794)
Attorney for Patentees
Raymond M. Doss (Reg No. 61,000)
Agent for Patentees
c/o ROPES & GRAY LLP
(Customer No. 1473)
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New York, New York 10036
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Fax.: (212) 596-9090

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Attorney for Patentees

Raymond M. Doss (Reg No. 61,000)

Agent for Patentees

c/o ROPES & GRAY LLP

(Customer No. 1473)

1211 Avenue of the Americas

New York, New York 10036

Tel.: (212) 596-9000

Fax.: (212) 596-9090

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO : 6,800,735
 APPLICATION NO : 09/832,659
 ISSUE DATE : October 5, 2004
 INVENTOR(S) : Adrian Whitty, Laura Runkel, Margot
 Brickelmaier, Paula Hochman

It is certified that errors appear in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

Column 3, line 40: "(SerGlyGly) upstream of the histidine tag (His₆, positions" should read --
 (SerGlyGly) upstream of the histidine tag (His₆ (SEQ ID NO:63), positions--

Column 3, line 42: "(AspAspAspAspLys) is separate from the histidine tag by a" should read --
 (AspAspAspAspLys) (SEQ ID NO: 62) is separate from the histidine tag by a--

Column 15, line 36: "in SEQ ID NO:43; GGGGS in SEQ ID NO:8)." should read --in SEQ ID
 NO:43; GGGGS (SEQ ID NO:64) in SEQ ID NO:8)--

Column 32, line 61: "linker sequence (DDDDK) and a terminal restriction" should read --linker
 sequence (DDDDK) (SEQ ID NO:62) and a terminal restriction--

Column 35, line 33: "changed the enterokinase linker sequence (DDDDK) to a" should read --
 changed the enterokinase linker sequence (DDDDK) (SEQ ID NO:62) to a--

Column 35, line 34: "GGGGS linker sequence in frame and fused 3' to the human" should read --
 GGGGS (SEQ ID NO:64) linker sequence in frame and fused 3' to the human--

Column 45, lines 39-44:

"<210> SEQ ID NO 5

<211> LENGTH: 60

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 5

gatctagcaa tgctgcctgt gctgccctcc tggctgcctt gaatgggagg ctgaatact 60"

should read

--<210> 5

<211> LENGTH: 69

<212> TYPE: DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Construct

<220>

<221> CDS

<222> (1)..(69)

<400> SEQUENCE: 5

ttcattaaca gacttacatg ttacctccga aacgtcgaca aaactcacac atgccaccg 60

tgc cca gca 69--

Column 45, line 45 to Column 47, line 2:

"<210> SEQ ID NO 6

<211> LENGTH: 51

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 6

tattatggga ggattctgca ttacctgaag gcccaaggagt actcacactg t 51"

should read

--<210> SEQ ID NO 6

<211> LENGTH: 23

<212> TYPE: PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Construct

<400> 6

Phe Ile Asn Arg Leu Thr Cys Tyr Leu Arg Asn Val Asp Lys Thr His

1 5 10 15

Thr Cys Pro Pro Cys Pro Ala

20--

Column 47, lines 3-9:

"<210> SEQ ID NO 7

<211> LENGTH: 76

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 7

aattgaatgg gagggctgca gcttgcgctg cagacaggat gaactttgac atccctgagg 60

agattaagca gctgca 76"

should read

--<210> SEQ ID NO 7

<211> LENGTH: 81

<212> TYPE: DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Construct

<220>

<221> CDS

<222> (1)..(81)

<400> 7
 ttcattaaca gacttacatg ttacctccga aacggcgggtg gtggcagcgt cgacaaaact 60
 cacacatgcc caccgtgccc a 81--

Column 47, lines 10-22:

"<210> SEQ ID NO 8
 <211> LENGTH: 51
 <212> TYPE: PRT
 <213> ORGANISM: Homo sapiens
 <400> SEQUENCE: 8
 Ala Ala Thr Gly Ala Ala Thr Gly Gly Gly Ala Gly Gly Cys Thr
 1 5 10 15
 Thr Gly Ala Ala Thr Ala Cys Thr Gly Cys Cys Thr Cys Ala Ala Gly
 20 25 30
 Gly Ala Cys Ala Gly Gly Ala Thr Gly Ala Ala Cys Thr Thr Thr Gly
 35 40 45
 Ala Cys Ala
 50"

should read

--<210> SEQ ID NO 8
 <211> LENGTH: 27
 <212> TYPE: PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic Construct

<400> 8
 Phe Ile Asn Arg Leu Thr Cys Tyr Leu Arg Asn Gly Gly Gly Gly Ser
 1 5 10 15
 Val Asp Lys Thr His Thr Cys Pro Pro Cys Pro
 20 25--

Column 47, lines 23-28:

"<210> SEQ ID NO 9
 <211> LENGTH: 60
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <400> SEQUENCE: 9
 ttctccggag acgatgatga caagatgagc tacaacttgc ttggattcct acaaagaagc 60"

should read

--<210> SEQ ID NO 9
 <211> LENGTH: 60
 <212> TYPE: DNA
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Primer

<400> 9

ttctccggag acgatgatga caagatgagc tacaactgc ttggattcct acaaagaagc 60--

Column 47, lines 29-34:

"<210> SEQ ID NO 10

<211> LENGTH: 50

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 10

cgtcagagct gaaatcctag caaacttgc attcattgca agacttacag 50"

should read

--<210> SEQ ID NO 10

<211> LENGTH: 39

<212> TYPE: DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Primer

<400> 10

gccgctcgag ttatcagttt cggaggtaac ctgtaagtc 39--

Column 47, lines 35-40:

"<210> SEQ ID NO 11

<211> LENGTH: 47

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 11

ggtggtctca catgagctac aacttgcttg gattcctaca aagaagc 47"

should read

--<210> SEQ ID NO 11

<211> LENGTH: 35

<212> TYPE: DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Primer

<400> 11

agcttccggg ggccatcatc atcatcatca tagct 35--

Column 47, lines 41-46:

"<210> SEQ ID NO 12

<211> LENGTH: 50

<212> TYPE: DNA

<213> ORGANISM: Homo sapiens

<400> SEQUENCE: 12

gcctctgagt cgacctgtgc atcatcgctg ttccggaggt aacctgtaag 50"

should read

--<210> SEQ ID NO 12
<211> LENGTH: 35
<212> TYPE: DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Primer

<400> 12
ccggagctat gatgatgatg atgatggccc ccgga 35--

Column 47, line 47 to Column 49, line 4:

"<210> SEQ ID NO 13
<211> LENGTH: 21
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 13
caagcttgct agcggccgcg g 21"

should read

--<210> SEQ ID NO 13
<211> LENGTH: 87
<212> TYPE: DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotide

<400> 13
ccggagacga tgatgacaag atggcttacg ccgctcttg agccctacaa gcttctagca 60
atttcagtg tcagaagctc ctgtggc 87--

Column 49, lines 5-10:

"<210> SEQ ID NO 14
<211> LENGTH: 28
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 14
ggtggtctca catggcttga gaagctgc 28"

should read

--<210> SEQ ID NO 14
<211> LENGTH: 60
<212> TYPE: DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Oligonucleotide

<400> 14
gatctagcaa tgctgcctgt gctgccctcc tggctgcctt gaatggagg ctgaatact 60--

Column 49, lines 11-16:

"<210> SEQ ID NO 15

<211> LENGTH: 20
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <400> SEQUENCE: 15
 aggtsmarct gcagsagtcw 20"

should read

--<210> SEQ ID NO 15
 <211> LENGTH: 52
 <212> TYPE: DNA
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic Oligonucleotide

<400> 15
 gcctcaagga caggatgaac ttgacatcc ctgaggagat taagcagctg ca 52--

Column 49, lines 17-22:

"<210> SEQ ID NO 16
 <211> LENGTH: 36
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <400> SEQUENCE: 16
 ctgagctcat ttaccggag tccgggagaa gctctt 36"

should read

--<210> SEQ ID NO 16
 <211> LENGTH: 76
 <212> TYPE: DNA
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic Oligonucleotide

<400> 16
 aattgaatgg gagggctgca gcttgcgctg cagacaggat gaactttgac atccctgagg 60
 agattaagca gctgca 76--

Column 49, lines 23-28:

"<210> SEQ ID NO 17
 <211> LENGTH: 33
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <400> SEQUENCE: 17
 agcttgctag cggccgcggc ctactggct tca 33"

should read

--<210> SEQ ID NO 17
 <211> LENGTH: 76
 <212> TYPE: DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic Oligonucleotide

<400> 17
 aattgaatgg gaggttgaa tactgcctca aggacagggc tgcattgct atccctgcag 60
 agattaagca gctgca 76--

Column 49, lines 29-34:
 "<210> SEQ ID NO 18
 <211> LENGTH: 37
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <400> SEQUENCE: 18
 atacgcgtcg acgtttcgga ggtaacatgt aagtctg 37"

should read

--<210> SEQ ID NO 18
 <211> LENGTH: 51
 <212> TYPE: DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic Oligonucleotide

<400> 18
 aattgaatgg gaggttgaa tactgcctca aggacaggat gaacttgac a 51--

Column 49, lines 35-40:
 "<210> SEQ ID NO 19
 <211> LENGTH: 33
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <400> SEQUENCE: 19
 agcttgctag cggccgcggc ctactggct tca 33"

should read

--<210> 19
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic Oligonucleotide

<400> 19
 tccctgagga gattgctgca gctgcagctt tcgctgcagc tga 43--

Column 49, lines 41-46:
 "<210> SEQ ID NO 20
 <211> LENGTH: 51
 <212> TYPE: DNA
 <213> ORGANISM: Homo sapiens
 <400> SEQUENCE: 20
 tacacgtcga cgctgccacc accgccgttt cggaggtaac atgtaagtct g 51"

should read

--<210> SEQ ID NO 20
<211> LENGTH: 78
<212> TYPE: DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Oligonucleotide

<400> 20

cgccgcgttg accatctatg agatgctcgc taacatcgct agcattttca gacaagattc 60

atctagcact ggctggaa

78--

Column 49, line 47 to Column 51, line 5:

"<210> SEQ ID NO 21
<211> LENGTH: 39
<212> TYPE: DNA
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 21
gccgctcgag ttatcagttt cggaggtaac ctgtaagtc

39"

should read

--<210> SEQ ID NO 21
<211> LENGTH: 78
<212> TYPE: DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Oligonucleotide

<400> 21

cgccgcattg accatctatg agatgctcca gaacatcttt gctattttcg ctgcagcttc 60

atctagcact ggctggaa

78--

After Column 49, line 47 to Column 51, line 5 please add:

-- <210> SEQ ID NO 62
<211> LENGTH: 5
<212> TYPE: PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Peptide

<400> 62

Asp Asp Asp Asp Lys
1 5

<210> SEQ ID NO 63
<211> LENGTH: 6
<212> TYPE: PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic 6x His tag

<400> 63

His His His His His His

1 5

<210> SEQ ID NO 64

<211> LENGTH: 5

<212> TYPE: PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic Peptide

<400> 64

Gly Gly Gly Gly Ser

1 5--

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